

REMARKS

Applicants have amended their claims, during a period of suspension of action under 37 CFR 1.103(c), in order to further clarify the definition of various aspects of the present invention. Clearly, entry of the present amendments is proper, notwithstanding that the present amendments are made in a supplemental reply. See 37 CFR 1.111(b)(2)(ii).

Specifically, Applicants are adding new claims 12-15 to the application. Of these newly added claims, claim 12 is the sole newly added independent claim, and claims 12-15 are all directed to an apparatus for producing a high molecular weight polyester.

Claim 12 recites that the apparatus is adapted to produce the high molecular weight polyester from raw materials of an aromatic dicarboxylic acid or its derivative and glycols; and also recites that the apparatus includes a reactor having, inter alia, a stirring rotor which is provided and adapted to rotate in a substantially horizontal cylindrical vessel (which is a reactor of the apparatus), with the stirring rotor having a plurality of stirring blocks provided with stirring vanes having no shaft at a rotating center, the stirring blocks having the stirring vanes being different in structure from one another. Note, for example, the sole full paragraph on page 8, and pages 19-27, of Applicants' specification. Claims 13-15, dependent respectively on claims 12, 12 and 14, further define the stirring vanes.

Applicants respectfully rely on arguments made in the Request for Reconsideration After Final Rejection submitted July 8, 2005, concurrently with the filing of the RCE Transmittal, as to reasons that the subject matter of claims 1, 2 and 7 patentably distinguish over the teachings of the applied prior art.

With respect to presently submitted claims 12-15, it is respectfully submitted that the applied prior art would have neither disclosed nor would have suggested

such apparatus as in the present claims, adapted to produce a high molecular weight polyester from raw materials of an aromatic dicarboxylic acid or its derivative and glycols, the apparatus including a reactor including, inter alia, a substantially horizontal vessel, and a stirring rotor which is provided and adapted to rotate in the substantially horizontal cylindrical vessel of the reactor, the stirring rotor having a plurality of stirring blocks provided with stirring vanes having no shaft at a rotating center, with the stirring blocks having the stirring vanes being different in structure from one another. Note claim 12.

Furthermore, it is respectfully submitted that the applied references would have neither taught nor would have suggested such apparatus as in the present claims, having features as in claim 12 as discussed previously, and, furthermore, wherein the stirring vanes of the stirring blocks both on low and high viscosity sides of the reactor each have at least one scraping plate in the periphery, with the number of the stirring vanes on the high viscosity side being smaller than the number of stirring vanes on the low viscosity side (see claim 13); and/or wherein the stirring vanes on the low and high viscosity sides each have at least one hollow portion, the area of the hollow portions on the high viscosity side being larger than the area of the hollow portions on the low viscosity side (see claim 14); and/or wherein the stirring vanes on the low and high viscosity sides each have at least one scraping plate in the periphery, with the number of stirring vanes on the high viscosity side being smaller than the number of stirring vanes on the low viscosity side (see claim 15).

Through use of the apparatus as in the present claims, including the plurality of stirring blocks which are different in structure from one another (note claim 12), particularly wherein the blocks have stirring vanes smaller in number on the high viscosity side than the number on the low viscosity side, effective and efficient mixing

of the polyester as it is being formed, from, e.g., a relatively low viscosity material at, e.g., an inlet to the reactor to, e.g., a relatively high viscosity material at the outlet of the reactor, can be achieved. Furthermore, with the scraping plates as recited in the present claims, inner wall surfaces of the reactor are kept always in a substantially complete self-cleaning state, to, e.g., prevent the final polyester (high molecular weight polyester) from deposition on the end surface of the reactor.

As for the teachings of Rothert, et al., note the paragraph bridging pages 3 and 4 of the Request for Reconsideration After Final Rejection submitted July 8, 2005. It is respectfully submitted that this reference would have neither taught nor would have suggested the stirring rotor having a plurality of stirring blocks, with the stirring blocks having the stirring vanes being different in structure from one another, as in the present claims 12-15, and advantages thereof; and/or other features of the present invention as in claims 13-15 and discussed previously, and advantages thereof.

Hohlbaum is discussed in the paragraph bridging pages 6 and 7 of the aforementioned Request for Reconsideration After Final Rejection submitted July 8, 2005.

As indicated previously, it is respectfully submitted that one of ordinary skill in the art concerned with in Rothert, et al. would not have looked to the teachings of Hohlbaum, directed to different technologies and different functions.

In any event, even assuming, arguendo, that the teachings of Rothert, et al. and Hohlbaum were properly combinable, such combined teachings would have neither disclosed nor would have suggested the presently claimed apparatus, adapted to produce a high molecular weight polyester from raw materials of an aromatic dicarboxylic acid or its derivate and glycols, and including, inter alia, wherein the reactor has a stirring rotor having a plurality of stirring blocks provided

with stirring vanes having no shaft at a rotating center, the stirring blocks having the stirring vanes being different in structure from one another, as in claim 12, and/other features of the present invention as discussed in the foregoing.

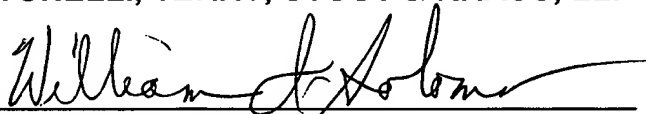
The contention by the Examiner in the first paragraph on page 4 of the Final Office Action mailed March 8, 2005, that Rothert, et al. discloses a stirring rotor 26 being divided into a plurality of stirring blocks having structure based upon the viscosity of the liquid feed, the Examiner pointing to column 2, lines 55-68, column 3, lines 40-52, column 4, lines 16-32 and column 7, lines 35-63, of Rothert, et al., is noted. See the first paragraph on page 4 of the Office Action mailed March 8, 2005. It is respectfully submitted, however, that Rothert, et al. discloses that the discs at one end of the apparatus may be different than those at the other. It is respectfully submitted that such disclosure does not teach, nor would have suggested, the plurality of stirring blocks provided with stirring vanes having no shaft at a rotating center, with the stirring blocks having stirring vanes being different in structure from one another.

In view of the foregoing comments and amendments, and the comments in the Request for Reconsideration After Final Rejection submitted July 8, 2005, and noting 37 CFR 1.111(b)(2)(ii), entry of the present amendments, and reconsideration and allowance of all claims presently in the application, are respectfully requested.

Applicants request any shortage of fees due in connection with the filing of this paper be charged to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case 500.36898VX1), and credit any excess payment of fees to such Deposit Account.

Respectfully submitted,

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